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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,659	04/18/2001	Dennis A. Dempsey	T0461/7014 SJH	9130
23628	.7590	12/31/2003	EXAMINER	
WOLF GREENFIELD & SACKS, PC FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 02210-2211			THAI, XUAN MARIAN	
			ART UNIT	PAPER NUMBER
			2111	
DATE MAILED: 12/31/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/837,659	DEMPSEY ET AL.
	Examiner XUAN M. THAI	Art Unit 2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 April 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 26 is/are allowed.
- 6) Claim(s) 1-7, 11-17 and 21-23 is/are rejected.
- 7) Claim(s) 8-10, 18-20, 24 and 25 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

1. This is in response to communication filed on April 18, 2001. Claims 1-26 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7, 11-17 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Lewis (USPN 5,347,190).

As per claims 1, 7, 11, 17 and 21, Applicant's Admitted Prior Art of Figures 1-4 discloses the claimed invention including method and apparatus for communicating between a controller and a device with double-buffered inputs, the method comprising the steps of: providing communication paths for exchanging data between the controller and the device; providing a data transfer control signal from the controller to the device (pages 2-3) for transferring input data from input registers into the latchable data registers (page 3). However, the Admitted Prior Art does not teach providing a delay signal to the controller, wherein in the first logic state, the delay signal prevents transfer of input data from the input registers into the latchable data registers until after a transition to a second logic state occurs on the delay signal.

Lewis, in a bus controller circuit, for data communications system, teaches a self-contained data conversion system including a data conversion complete signal for storing converted data into latchable registers (output latches). The data are only latched when the conversion is completed (Fig. 16; col. 23, lines 1-31).

At the time the invention was made, it would have been obvious to combine the teachings of the Admitted Prior Art with the teachings of Lewis to arrive at the claimed invention in that Lewis teaches that by latching the converted data only when the conversion is complete, the loose synchronization that is so important to contents transmission can be easily obtained (col. 23, lines 1-31).

As per claims 2, 3, 12, 13 and 22-23, the Admitted Prior Art (Fig. 1, page 1) discloses that it is known to provide communication paths comprises providing a bi-directional serial data communication line (DIN 104) and a serial clock signal communication line (SCLK 105).

As per claims 4, 5, 14 and 15, the Admitted Prior Art discloses that it is known to provide parallel bi-directional data bus and control signals (page 1, lines 21-22).

As per claims 6 and 16, the Admitted Prior Art discloses that it is known to provide control signal (e.g. BUSY signal) that latches data into registers on a high to low transition (page 2).

Allowable Subject Matter

5. Claims 8-10, 18-20, 24-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claim 26 is allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:
The claims are allowable because the prior art do not specifically teach using an open drain data transfer delay signal/device between the conversion device and the controller in a wired-OR configuration as claimed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XUAN M. THAI whose telephone number is 703-308-2064. The examiner can normally be reached on Monday to Friday from 8:30 A.M. to 5:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



XUAN M. THAI
Primary Examiner
Art Unit 2181

XMT
December 29, 2003